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DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L4 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:455239 CAPLUS

DOCUMENT NUMBER: 150:460455

TITLE: Organic field emission element with improved  
durability and efficiency containing platinum complex  
and silane derivative

INVENTOR(S): Fukuzaki, Eiji; Igarashi, Tatsuya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 92pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

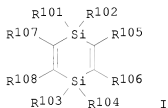
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2009081409	A	20090416	JP 2008-46317	20080227
PRIORITY APPLN. INFO.:			JP 2007-119534	A 20070427
			JP 2007-229024	A 20070904

GI



AB Disclosed is an organic field emission element such as an organic EL element  
containing between a pair of electrodes a silane derivative represented by I  
(R101-108 = H, substituent) and a Pt complex having a tetradentate ligand.

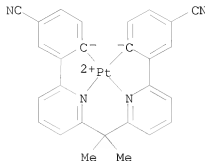
IT 881887-26-9

RL: TEM (Technical or engineered material use); USES (Uses)

(Organic field emission element with improved durability and efficiency  
containing platinum complex and silane derivative)

RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-[(1-methylethylidene)di-6,2-  
pyridinediyl]bis[benzonitrilato]](2-)]- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:138827 CAPLUS

DOCUMENT NUMBER: 150:202540

TITLE: Organic electroluminescent devices with graded concentrations of electron-transporting light-emitting materials in hole-transporting hosts

INVENTOR(S): Kinoshita, Masaru; Tobise, Manabu

PATENT ASSIGNEE(S): Fujifilm Corporation, Japan

SOURCE: PCT Int. Appl., 75pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009017210	A1	20090205	WO 2008-JP63813	20080725
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

JP 2009032977 A 20090212 JP 2007-196527 20070727

PRIORITY APPLN. INFO.: JP 2007-196527 A 20070727

AB Organic electroluminescent device comprising an anode, a cathode disposed facing the anode, and an organic layer that is sandwiched between the anode and the cathode and that includes at least a light-emitting layer are described in which the light-emitting layer comprises an electron-transporting light-emitting material, a hole-transporting host material, and an elec. inert material, and the concentration of the electron-transporting light-emitting material gradually decreases from a cathode side toward an anode side. Preferably, the concentration of the elec. inert material also gradually decreases from the cathode side toward the anode side.

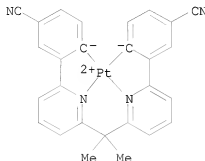
IT 881887-26-9

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(organic electroluminescent devices with graded concns. of electron-transporting light-emitting materials in hole-transporting hosts)

RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-(1-methylethylidene)di-6,2-pyridinediyl]bis(benzonitrilato)](2-)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:116715 CAPLUS

DOCUMENT NUMBER: 150:155944

TITLE: Organic electroluminescent elements with high light-emission efficiency and excellent durability employing multiple light-emitting materials having different electron affinities and gradially changing compositions

INVENTOR(S): Satou, Tasuku; Kinoshita, Masaru; Tobise, Manabu

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 28pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090026936	A1	20090129	US 2008-177951	20080723
JP 2009055010	A	20090312	JP 2008-188629	20080722
PRIORITY APPLN. INFO.:			JP 2007-196677	A 20070727

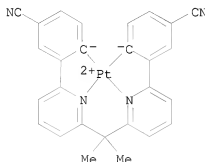
AB Organic electroluminescence elements are described which comprise a light-emitting layer between a pair of electrodes, where the light-emitting layer contains at least two light-emitting materials having different Ea values and at least one host material, a concentration of a light-emitting material having a larger Ea value in the light-emitting layer gradually decreases from a cathode side toward an anode side, and a concentration of a light-emitting material having a smaller Ea value in the light-emitting layer gradually decreases from the anode side toward the cathode side.

IT 881887-26-9  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (light-emitting layer containing; organic electroluminescent elements employing multiple light-emitting materials having different electron

affinities)

RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-(1-methylethylidene)di-6,2-pyridinediyl]bis(benzonitrilato)](2-)]- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:85882 CAPLUS

DOCUMENT NUMBER: 150:179579

TITLE: Organic electroluminescent device

INVENTOR(S): Okada, Hisashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 97pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2009016184	A	20090122	JP 2007-176762	20070704
PRIORITY APPLN. INFO.:				JP 2007-176762	20070704

AB The invention refers to an organic electroluminescent device comprising two or more luminescent units between two electrodes, wherein the intermediate connecting layer between the luminescent units, and each of the luminescent units have organic layers which contain a luminescent layer, and the light from the luminescent units combine to create white light.

IT 864541-08-2 881887-26-9 930778-68-0

1104389-25-4

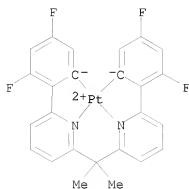
RL: TEM (Technical or engineered material use); USES (Uses)

(organic electroluminescent device)

RN 864541-08-2 CAPLUS

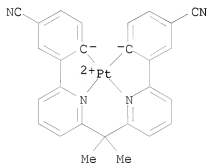
CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)

10/578,039



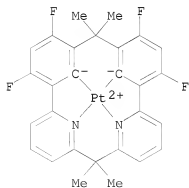
RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-[(1-methylethylidene)di-6,2-pyridinediyl]bis[benzonitrilato]](2-)]- (9CI) (CA INDEX NAME)



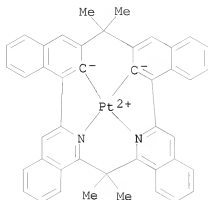
RN 930778-68-0 CAPLUS

CN Platinum, (3,5,9,11-tetrafluoro-7,7,18,18-tetramethyl-23,24-diazapentacyclo[17.3.1.12,6.18,12.113,17]hexacos-1(23),2,4,6(26),8,10,12(25),13,15,17(24),19,21-dodecaene-25,26-diyl-κC25,κC26,κN23,κN24)-, (SP-4-2)- (CA INDEX NAME)



RN 1104389-25-4 CAPLUS

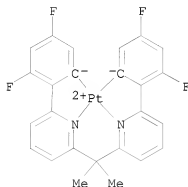
CN Platinum, (14,14,29,29-tetramethyl-14H,29H-7,13:15,21-dimetheno-6,30:22,28-dinitrilotetrabenzo[a,f,k,p]cyclodocosene-33,34-diyl-κC33,κC34,κN31,κN32)-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:1280630 CAPLUS  
 DOCUMENT NUMBER: 149:502651  
 TITLE: Organic electroluminescent display device and  
 patterning method  
 INVENTOR(S): Matsunaga, Atsushi; Nakayama, Masaya; Tanaka, Atsushi  
 PATENT ASSIGNEE(S): Fujifilm Corporation, Japan  
 SOURCE: PCT Int. Appl., 43pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008126883	A1	20081023	WO 2008-JP57053	20080403
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
JP 2008276211	A	20081113	JP 2008-94273	20080331
PRIORITY APPLN. INFO.:			JP 2007-99516	A 20070405
AB	An organic electroluminescent display device includes a driving TFT and pixels which are formed by organic electroluminescent elements and provided in a pattern on a substrate of the TFT. The driving TFT includes at least a substrate, a gate electrode, a gate insulating film, an active layer, a source electrode, and a drain electrode; the driving TFT further includes a resistive layer between the active layer and at least one of the source electrode and the drain electrode; and the pixels are formed in a pattern by a laser transfer method. A patterning method by a laser transfer method for producing the fine pixels is also provided.			
IT	864541-08-2			

RL: TEM (Technical or engineered material use); USES (Uses)  
 (organic electroluminescent display device and patterning method)  
 RN 864541-08-2 CAPLUS  
 CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:1188420 CAPLUS  
 DOCUMENT NUMBER: 149:435443  
 TITLE: Organic electroluminescence element  
 INVENTOR(S): Satou, Tasuku; Fukunaga, Hirofumi; Tobise, Manabu  
 PATENT ASSIGNEE(S): Japan  
 SOURCE: U.S. Pat. Appl. Publ., 38pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080241518	A1	20081002	US 2008-54147	20080324
JP 2008270729	A	20081106	JP 2008-26984	20080206
PRIORITY APPLN. INFO.:			JP 2007-80253	A 20070326
			JP 2008-26984	A 20080206

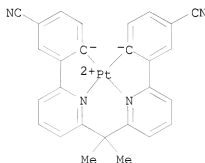
OTHER SOURCE(S): MARPAT 149:435443

AB Organic electroluminescent element comprising at least one organic layer including a light-emitting layer between a pair of electrodes are described in which the element includes an electron transport layer containing a phosphine oxide compound and an electron transport layer that does not contain the phosphine oxide compound between the light-emitting layer and a cathode, the electron transport layer containing the phosphine oxide compound being nearer to the cathode while the electron transport layer that does not substantially contain the phosphine oxide compound is nearer to the light-emitting layer.

IT 881887-26-9

RL: TEM (Technical or engineered material use); USES (Uses)  
 (organic electroluminescent devices with phosphine oxide compound-containing and phosphine oxide-compound free dual electron transport layers)  
 RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-(1-methylethylidene)di-6,2-pyridinediyl]bis[benzonitrilato]](2-)]- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1185550 CAPLUS

DOCUMENT NUMBER: 149:435442

TITLE: Organic electroluminescent devices with layers including deuterated carbazole derivatives and platinum complexes

INVENTOR(S): Takeda, Akira

PATENT ASSIGNEE(S): Fujifilm Corporation, Japan

SOURCE: PCT Int. Appl., 77pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

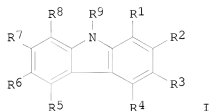
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008117889	A1	20081002	WO 2008-JP56532	20080326
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: JP 2007-85961 A 20070328

OTHER SOURCE(S): CASREACT 149:435442; MARPAT 149:435442

GI





AB Organic electroluminescent devices comprising a pair of electrodes; and at least one organic layer between the pair of electrodes, the at least one organic

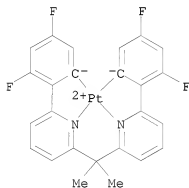
layer including a light-emitting layer are described in which the organic layer(s) contain a compound are described by the general formula I (R1-8 = independently selected H or a substituent, and contiguous groups of R1-8 may be bonded to each other to form a condensed ring; R9 = alkyl, alkenyl, aryl, heteroaryl, or silyl, and each group may be substituted with substituent; and  $\geq 1$  R1-9 = deuterium or a substituent containing deuterium) and the light-emitting layer contains a phosphorescent platinum complex having a tetradentate ligand.

IT 864541-08-2 881887-26-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(organic electroluminescent devices with layers including deuterated carbazole derivs. and platinum complexes)

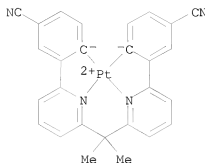
RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



RN 881887-26-9 CAPLUS

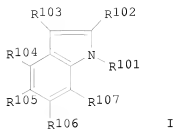
CN Platinum, [[3,3'-[(1-methylethylidene)di-6,2-pyridinediyl]bis[benzonitrilato]](2-)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:674480 CAPLUS  
 DOCUMENT NUMBER: 149:41393  
 TITLE: Organic electroluminescent device containing indole-based light-emitting layer  
 Igarashi, Tatsuya; Yagi, Kazunari  
 INVENTOR(S): Fujifilm Corporation, Japan  
 PATENT ASSIGNEE(S): PCT Int. Appl., 101pp.  
 SOURCE: CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008066192	A1	20080605	WO 2007-JP73274	20071127
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM JP 2008160087 A 20080710 JP 2007-303467 20071122 PRIORITY APPLN. INFO.: JP 2006-318771 A 20061127 OTHER SOURCE(S): MARPAT 149:41393 GI				



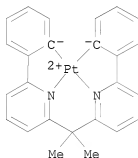
AB An organic electroluminescent device is described comprising a pair of electrodes; and at least one organic layer between the pair of electrodes, the at least one organic layer including a light-emitting layer, wherein the at least one organic layer includes at least one layer containing an indole derivative represented by general formula I, and the light-emitting layer includes a platinum complex phosphorescent material having a tetradentate ligand, wherein R101-R107 each independently represents a hydrogen atom or a substituent, provided that R102-R103 are not bonded to each other to form an aromatic condensed ring.

IT 808111-97-9 864541-08-2 881887-26-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(light emitting layer; organic electroluminescent device containing indole-based light-emitting enhancer)

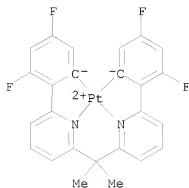
RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (CA INDEX NAME)



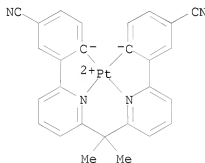
RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-[(1-methylethylidene)di-6,2-pyridinediyl]bis[benzonitrilato]](2-)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:673873 CAPLUS

DOCUMENT NUMBER: 149:66137

TITLE: Organic electroluminescent device and indole derivative

INVENTOR(S): Igarashi, Tatsuya; Yagi, Kazunari

PATENT ASSIGNEE(S): Fujifilm Corporation, Japan

SOURCE: PCT Int. Appl., 54pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

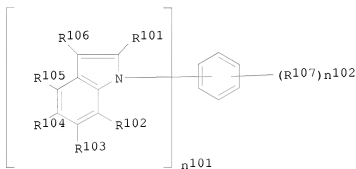
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008066195	A1	20080605	WO 2007-JP73278	20071127
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR,				

TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW,  
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM

JP 2009076835 A 20090409 JP 2007-303466 20071122  
 PRIORITY APPLN. INFO.: JP 2006-318773 A 20061127  
 JP 2007-221520 A 20070828

OTHER SOURCE(S): MARPAT 149:66137  
 GI



AB An organic electroluminescent device is described comprising a pair of electrodes; and at least one organic layer between the pair of electrodes, the at least one organic layer including a light-emitting layer containing a light-emitting material, wherein the at least one organic layer includes at least one layer containing an indole derivative represented by the general formula

I wherein R102, R103, R104, R105 and R106 each independently represents a hydrogen atom or a substituent; R101 represents a substituent linking via a carbon atom; R101 and R106 may be bonded to each other to form a ring; R107 represents a substituent; n101 represents 1 or 2; and n102 represents an integer of from 0 to 5, provided that  $n101 + n102 \leq 6$ .

IT 808111-97-9 864541-08-2 881887-26-9

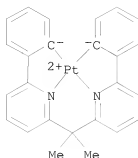
RL: TEM (Technical or engineered material use); USES (Uses)

(phosphorescent material; organic electroluminescent device having indole derivative organic layer)

RN 808111-97-9 CAPLUS

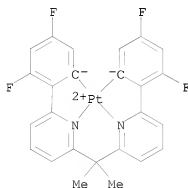
CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (CA INDEX NAME)

10/578,039



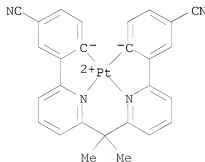
RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



RN 881887-26-9 CAPLUS

CN Platinum, [[3,3'-[(1-methylethylidene)di-6,2-pyridinediyl]bis[benzonitrilato]](2-)]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:550939 CAPLUS

DOCUMENT NUMBER: 148:506352

TITLE: Organic electroluminescent (EL) elements with excellent durability and efficiency and white-emitting

INVENTOR(S): EL devices using them  
 Igarashi, Tatsuya  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 70pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008108617	A	20080508	JP 2006-291334	20061026

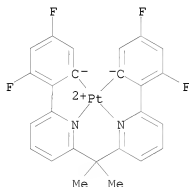
PRIORITY APPLN. INFO.: JP 2006-291334 20061026  
 OTHER SOURCE(S): MARPAT 148:506352

AB The elements have EL layers (A) containing metal complex hosts and phosphors with condensed aromatic ligands and EL layers (B) containing phosphors of Pt complexes with tetradentate ligands.

IT 864541-08-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (phosphor; white-emitting EL devices containing 2 emission layers with good durability and efficiency)

RN 864541-08-2 CAPLUS

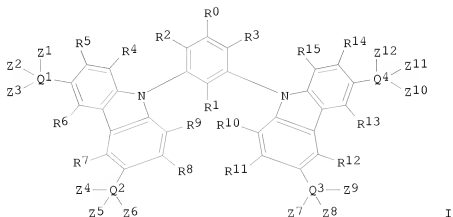
CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:549305 CAPLUS  
 DOCUMENT NUMBER: 148:549261  
 TITLE: Organic electroluminescent devices containing prescribed carbazole compounds and tetradentate phosphorescent complexes  
 Takeda, Rei  
 INVENTOR(S): Fuji Photo Film Co., Ltd., Japan  
 PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 35pp.  
 SOURCE: CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2008109103 A 20080508 JP 2007-239609 20070914  
 PRIORITY APPLN. INFO.: JP 2006-263415 A 20060927  
 OTHER SOURCE(S): MARPAT 148:549261  
 GI

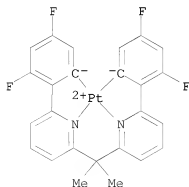


AB The devices, showing improved luminescent efficiency and long service life, have emitting layers containing carbazole derivs. I [Q1-Q4 = C, Si; R0 = H, alkyl, aryl, C-connected heteroaryl; R1 = H; R2-R15 = H, substituent; Z1-Z12 = alkyl, (hetero)aryl] and tetradentate ligand-equipped phosphorescent complexes.

IT 864541-08-2  
 RL: TEM (Technical or engineered material use); USES (Uses) (emitting layers; organic electroluminescent devices containing prescribed carbazole compds. and tetradentate phosphorescent complexes)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:419446 CAPLUS  
 DOCUMENT NUMBER: 148:437513  
 TITLE: Organic electroluminescent element  
 INVENTOR(S): Satou, Tasuku  
 PATENT ASSIGNEE(S): Fujifilm Corporation, Japan



SOURCE: U.S. Pat. Appl. Publ., 26pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

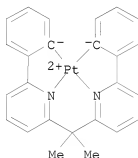
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080079358	A1	20080403	US 2007-902459	20070921
JP 2008109085	A	20080508	JP 2007-197716	20070730
PRIORITY APPLN. INFO.:			JP 2006-269485	A 20060929
			JP 2007-197716	A 20070730

AB An organic electroluminescent element includes at least one organic layer including a light-emitting layer between a pair of electrodes, wherein the light-emitting layer includes a metal complex having a tri-dentate or higher multi-dentate ligand, and a metal-free compound capable of giving a three or higher coordination with the same metal element as a central metal of the metal complex is provided. An organic electroluminescent element having a high light emitting efficiency and excellent durability is provided.

IT 808111-97-9  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (metal complex; organic electroluminescent element containing)

RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:1421312 CAPLUS  
 DOCUMENT NUMBER: 148:65687  
 TITLE: Organic electroluminescent device  
 INVENTOR(S): Murakami, Takeshi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 35pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007324309	A	20071213	JP 2006-151705	20060531
PRIORITY APPLN. INFO.:			JP 2006-151705	20060531

OTHER SOURCE(S): MARPAT 148:65687

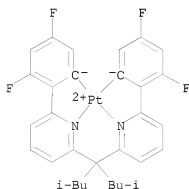
AB The invention relates to an organic electroluminescent device, comprising a tetradentate ligand-containing metal complex in which, at least, one linking group connecting between coordinating groups to the center metal, contains a specific alkyl group in order to prevent the mol. association that may reduce the luminescent efficiency.

IT 959838-95-0 959838-96-1 959838-97-2

RL: TEM (Technical or engineered material use); USES (Uses)  
(organic electroluminescent device)

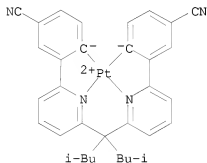
RN 959838-95-0 CAPLUS

CN Platinum, [[3-methyl-1-(2-methylpropyl)butylidene]bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC1)]]-, (SP-4-2)- (CA INDEX NAME)



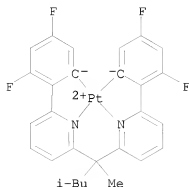
RN 959838-96-1 CAPLUS

CN Platinum, [[3-methyl-1-(2-methylpropyl)butylidene]bis[(6,2-pyridinediyl-κN)(4-cyano-2,1-phenylene-κC1)]]-, (SP-4-2)- (CA INDEX NAME)



RN 959838-97-2 CAPLUS

CN Platinum, [[1,3-dimethylbutylidene]bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC1)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:435308 CAPLUS

DOCUMENT NUMBER: 146:431504

TITLE: Organic field emission element made from multidentate metal complex

INVENTOR(S): Kitamura, Yoshitaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 149pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007103493	A	20070419	JP 2005-288903	20050930
PRIORITY APPLN. INFO.:			JP 2005-288903	20050930

AB Disclosed is an organic field emission element comprising  $\geq 2$  light emitting units disposed between a pair of electrodes and intermediate contact layers disposed between the light emitting units, wherein  $\geq 2$  light emitting units have independently an organic compound layer including a light emitting layer and containing a metal complex with tri- or higher-dentate.

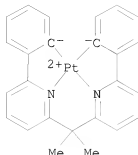
IT 808111-97-9

RL: TEM (Technical or engineered material use); USES (Uses)

(Organic field emission element made from multidentate metal complex)

RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:385414 CAPLUS  
 DOCUMENT NUMBER: 146:368522  
 TITLE: Organic electroluminescent element  
 INVENTOR(S): Sano, Satoshi; Igarashi, Tatsuya  
 PATENT ASSIGNEE(S): Fujifilm Corporation, Japan  
 SOURCE: U.S. Pat. Appl. Publ., 22pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

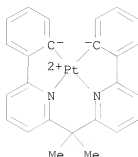
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070077453	A1	20070405	US 2006-542550	20061004
JP 2007129206	A	20070524	JP 2006-271604	20061003
PRIORITY APPLN. INFO.:			JP 2005-291145	A 20051004
OTHER SOURCE(S):	MARPAT 146:368522			

AB Organic electroluminescent elements are described which comprise a pair of electrodes; and at least one organic layer comprising a light-emitting layer between the pair of electrodes, where the at least one organic layer comprises at least one of compds. represented by formula (R1)<sub>m</sub>-(A1)<sub>n</sub>, where R1 represents a substituent; m represents an integer of 2 or more; n represents an integer of 1 or more; and A1 represents a group selected from the group consisting of specific compds., with the proviso that when m or n is 2 or more, a plurality of R1's or A1's may be the same or different.

IT 808111-97-9  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (organic electroluminescent elements using)

RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:383084 CAPLUS

DOCUMENT NUMBER: 146:390149

TITLE: Organic electroluminescent devices employing a polymer comprising a metal complex containing a tri- or higher-dentate ligand

INVENTOR(S): Okada, Hisashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 126pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070075311	A1	20070405	US 2006-529595	20060929
JP 2007123862	A	20070517	JP 2006-263431	20060927
PRIORITY APPLN. INFO.:			JP 2005-288831	A 20050930

OTHER SOURCE(S): MARPAT 146:390149

AB Organic electroluminescent devices are described which comprise an organic compound layer provided between a pair of electrodes, which comprises a polymer comprising a metal complex containing a tri- or higher-dentate ligand in the polymer mol. At least one of the ligands is preferably a chain. The metal complex preferably contains a transition metal ion or a rare earth metal ion. The metal complex preferably contains a nitrogen atom in its complex structure. Further, the polymer preferably contains the metal complex in its main chain or its side chain. Thus, green-emitting devices employing platinum organometallic polymers as luminescent materials were demonstrated and characterized.

IT 932397-76-7 932397-77-8

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(luminescent layer; organic electroluminescent devices employing polymer comprising metal complex containing tri- or higher-dentate ligand)

RN 932397-76-7 CAPLUS

CN Platinum, [[4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]phenylmethylene]bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC1]]-, (SP-4-2)-, homopolymer (CA INDEX NAME)

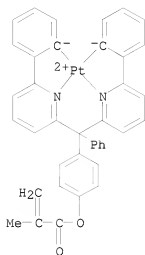
CM 1

CRN 932397-75-6

CMF C39 H28 N2 O2 Pt

10/578,039

CCI CCS



RN 932397-77-8 CAPLUS

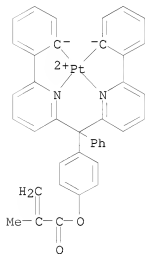
CN Platinum, [[4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]phenylmethylene]bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC1]]-, (SP-4-2)-, polymer with 9-ethenyl-9H-carbazole (CA INDEX NAME)

CM 1

CRN 932397-75-6

CMF C39 H28 N2 O2 Pt

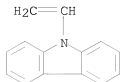
CCI CCS



CM 2

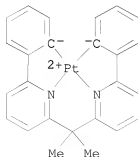
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CMF C14 H11 N

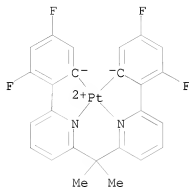


L4 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:380659 CAPLUS  
 DOCUMENT NUMBER: 146:390910  
 TITLE: Organic electroluminescent device and method for finely patterning it by laser ablation  
 INVENTOR(S): Kitamura, Yoshitaka  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 144pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007087667	A	20070405	JP 2005-272811	20050920
PRIORITY APPLN. INFO.:			JP 2005-272811	20050920
OTHER SOURCE(S):	MARPAT 146:390910			
AB	The device (for display) has, between a pair of electrodes, $\geq 1$ of light-emitting layers containing metal complexes bearing $\geq 3$ -dentate ligands and is patterned by laser ablation.			
IT	808111-97-9 864541-08-2			
	RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)			
	(dopants, light-emitting layers; method for finely patterning organic electroluminescent device by laser ablation)			
RN	808111-97-9 CAPLUS			
CN	Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)			



RN 864541-08-2 CAPLUS  
 CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:356751 CAPLUS  
 DOCUMENT NUMBER: 146:390112  
 TITLE: Organic electroluminescent devices with high emission efficiency and excellent durability and their manufacture by liquid-phase method  
 INVENTOR(S): Yamazaki, Kazuki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 143pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007080677	A	20070329	JP 2005-267249	20050914

PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 146:390112

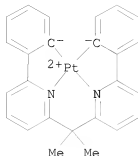
AB The devices have light-emitting layers manufactured by liquid-phase method (coating or printing method, preferably) using  $\geq 1$  metal complexes with  $\geq 3$ -dentate ligands.

IT 808111-97-9  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (light-emitting layer; manufacture of organic EL devices with high emission efficiency and durability by coating or printing method using multidentate ligand-metal complexes)

RN 808111-97-9 CAPLUS

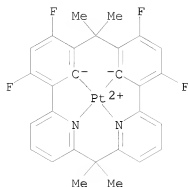
CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)





L4 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:356713 CAPLUS  
 DOCUMENT NUMBER: 146:390111  
 TITLE: Organic electroluminescent device  
 INVENTOR(S): Hasegawa, Kazuhiro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 144pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

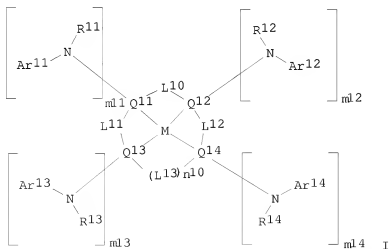
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007080593	A	20070329	JP 2005-264374	20050912
PRIORITY APPLN. INFO.:			JP 2005-264374	20050912
AB	The invention refers to an organic electroluminescent device comprising an at least one luminescent layer between two electrodes, and a resonator for resonating the light emitted from the luminescent layer, and the luminescent layer contains, as luminescent material, a metal complex having tri- or higher dentate ligands.			
IT	930778-68-0 RL: TEM (Technical or engineered material use); USES (Uses) (organic electroluminescent device)			
RN	930778-68-0 CAPLUS			
CN	Platinum, (3,5,9,11-tetrafluoro-7,7,18,18-tetramethyl-23,24-diazapentacyclo[17.3.1.12,6.18,12.113,17]hexacos-1(23),2,4,6(26),8,10,12(25),13,15,17(24),19,21-dodecaene-25,26-diyl-kC25,kC26,kN23,kN24)-, (SP-4-2)- (CA INDEX NAME)			



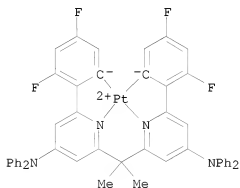
L4 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:286937 CAPLUS  
 DOCUMENT NUMBER: 146:347119  
 TITLE: Organic electroluminescent device and complex compound  
 INVENTOR(S): Takeda, Akira; Igarashi, Tatsuya  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 24pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070059552	A1	20070315	US 2006-518355	20060911
JP 2007073891	A	20070322	JP 2005-262305	20050909
PRIORITY APPLN. INFO.:			JP 2005-262305	A 20050909
OTHER SOURCE(S):		MARPAT 146:347119		

GI



- AB An organic electroluminescent device is described comprising a pair of electrodes; and at least one organic layer between the pair of electrode, the at least one organic layer including a light-emitting layer, wherein the at least one organic layer contains at least one compound represented by the general formula I (where M = a metal ion; Q11, Q12, Q13, Q14 = (independently) atom group coordinating with M; L10, L11, L12, L13 = (independently) a single bond, a double bond or a linking group; lines between the M and each of Q1 group represent one of a covalent bond, an ionic bond, and a coordinate bond; n10 = 0, 1, and when n10=0, Q13 and Q14 do not bond to each other; mli (i = 1,2,3,4) (independently) = integer of 0 or more, and at least one of mli is 1 or more; Arli = (independently) an aryl group or a heteroaryl group; and Rli = (independently) hydrogen atom or a substituent group).
- IT 929034-41-3P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (organic electroluminescent device having platinum complex as phosphorescent layer)
- RN 929034-41-3 CAPLUS
- CN Platinum, [(1-methylethylidene)bis[[4-(diphenylamino)-6,2-pyridinediyl-κN](3,5-difluoro-2,1-phenylene-κC1)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:286933 CAPLUS  
 DOCUMENT NUMBER: 146:325836  
 TITLE: Composition for organic electroluminescent element, method for manufacturing organic electroluminescent element, and organic electroluminescent element  
 INVENTOR(S): Yamazaki, Kazuki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 126pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070059551	A1	20070315	US 2006-518303	20060911
JP 2007110067	A	20070426	JP 2006-47240	20060223

## PRIORITY APPLN. INFO.:

JP 2005-267556 A 20050914  
 JP 2005-267557 A 20050914  
 JP 2006-47240 A 20060223

## OTHER SOURCE(S): MARPAT 146:325836

AB A composition for an organic electroluminescent element used for forming a pattern by an ink jet method is described comprising at least one metal complex having a tridentate or higher-dentate ligand. A method of fabricating an organic electroluminescent element including forming an organic compound layer

by discharging the composition for an organic electroluminescent element in a pattern with an ink jet apparatus, is also described entailing using a transfer material having an organic compound layer containing a metal complex having a tridentate or higher-dentate ligand, and organic electroluminescent elements manufactured by these methods.

IT 808111-97-9

RL: TEM (Technical or engineered material use); USES (Uses)

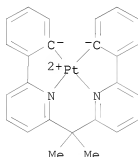
(composition for organic electroluminescent element for forming pattern by

ink

jet method)

RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:172434 CAPLUS

DOCUMENT NUMBER: 146:238960

TITLE: Organic electroluminescent device with high emission efficiency, good drive durability, and low-voltage drive property

INVENTOR(S): Okada, Hisashi; Nishida, Nobuhiro

PATENT ASSIGNEE(S): Fujifilm Holdings Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007042875	A	20070215	JP 2005-225568	20050803

PRIORITY APPLN. INFO.: JP 2005-225568 20050803

AB The organic EL device contains, between a pair of electrode, a

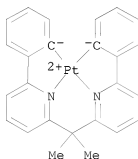
hole-transporting layer containing  $\geq 1$  kinds of hole-transporting materials, a light-emitting layer containing  $\geq 1$  kinds of light-emitting dopants and a plurality of host compds., an electron-transporting layer containing  $\geq 1$  kinds of electron-transporting substances, wherein among the host compds.,  $\geq 1$  kinds comprise hole-transporting host compds. and  $\geq 1$  kinds of electron-transporting host compds., between the hole-transporting layer and the light-emitting layer is provided a hole-transporting intermediate layer consisting of the same substance as that of the hole-transporting host compds., and/or between the electron-transporting layer is provided an electron-transporting intermediate layer consisting of the same substance as that of the electron-transporting host compds.

IT 808111-97-9 864541-08-2

RL: MOA (Modifier or additive use); USES (Uses)  
(light-emitting dopant; organic EL device with high emission efficiency, good drive durability, and low-voltage drive property)

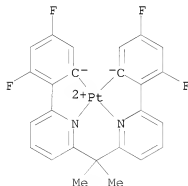
RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)



RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C))]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:63444 CAPLUS

DOCUMENT NUMBER: 146:151494

TITLE: Organic electroluminescent device

INVENTOR(S): Nariyuki, Fumito

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 23pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070015004	A1	20070118	US 2006-444422	20060601
JP 2007019471	A	20070125	JP 2006-132548	20060511
PRIORITY APPLN. INFO.:			JP 2005-166817	A 20050607

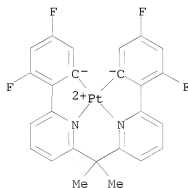
OTHER SOURCE(S): MARPAT 146:151494

AB The invention provides an organic electroluminescent device having at least a light-emitting layer containing a light-emitting material and a host material, a hole injection-promoting layer, and a hole-transporting layer containing a hole-transporting material in this order between a pair of electrodes, in which the hole injection-promoting layer contains a hole-transporting material and has a thickness of 0.1 nm to 0.3 nm, and the relation  $I_{p1} < I_{p2} < I_{p3}$  is satisfied, where  $I_{p1}$  is defined as the ionization potential of the hole-transporting material of the hole-transporting layer,  $I_{p2}$  is defined as the ionization potential of the hole-transporting material of the hole injection-promoting layer, and  $I_{p3}$  is defined as the ionization potential of the host material. Accordingly, the invention provides an electroluminescent device excellent in both light emitting efficiency and operation durability.

IT 864541-08-2  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (light-emitting layer guest; organic electroluminescent device)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1283684 CAPLUS

DOCUMENT NUMBER: 146:53463

TITLE: Organic electroluminescent devices

INVENTOR(S): Kinoshita, Ikuo; Igarashi, Tatsuya; Murakami, Takeshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006332620	A	20061207	JP 2006-119523	20060424
US 20060286406	A1	20061221	US 2006-410000	20060425

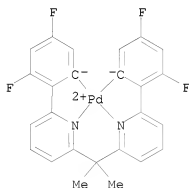
PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 146:53463

AB The devices contain layers containing the metal complexes with  
 ≥3-coordinated ligands between light-emitting layers and cathodes.  
 The devices have improved light emission efficiency.

IT 913699-15-7 913699-16-8 916427-56-0  
 916427-57-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (organic electroluminescent devices containing metal complexes with ligands)

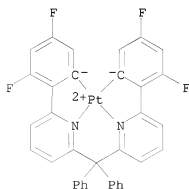
RN 913699-15-7 CAPLUS

CN Palladium, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



RN 913699-16-8 CAPLUS

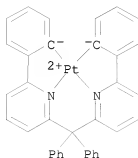
CN Platinum, [(diphenylmethylene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



RN 916427-56-0 CAPLUS

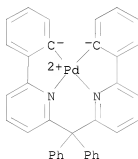
CN Platinum, [(diphenylmethylene)bis[(6,2-pyridinediyl-κN)-2,1-

phenylene-κC1]]-, (SP-4-2)- (CA INDEX NAME)



RN 916427-57-1 CAPLUS

CN Palladium, [(diphenylmethylene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC1]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1147252 CAPLUS

DOCUMENT NUMBER: 145:480097

TITLE: Organic electroluminescent devices employing a metal complex having a multidentate ligand as a host material

INVENTOR(S): Igarashi, Tatsuya; Murakami, Takeshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: PCT Int. Appl., 68pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006115299	A1	20061102	WO 2006-JP309137	20060425
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				



RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM

JP 2006332622 A 20061207 JP 2006-119568 20060424

EP 1874893 A1 20080109 EP 2006-745987 20060425

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

US 20090039768 A1 20090212 US 2007-912470 20071024

PRIORITY APPLN. INFO.: JP 2005-126733 A 20050425

WO 2006-JP309137 W 20060425

OTHER SOURCE(S): MARPAT 145:480097

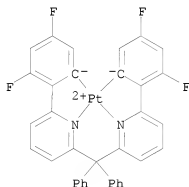
AB Organic electroluminescent devices are described which comprise a pair of electrodes; and at least one organic compound layer including a light emitting layer between the pair of electrodes, where the light emitting layer contains a host material and a light emitting material, and where the host material contains a metal complex having a tridentate or more ligand.

IT 913699-16-8 913699-17-9

RL: DEV (Device component use); PRP (Properties); USES (Uses)  
(organic electroluminescent devices employing metal complex having multidentate ligand as host material)

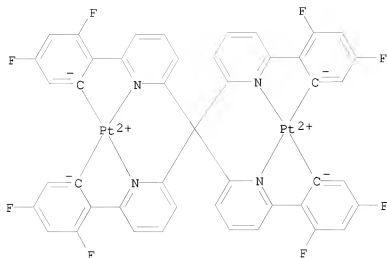
RN 913699-16-8 CAPLUS

CN Platinum, [(diphenylmethylene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



RN 913699-17-9 CAPLUS

CN Platinum, bis[μ-[(2,2'-bipyridine)-6,6'-diyl-κN1:κN1']bis[(3,5-difluoro-2,1-phenylene-κC)]]di- (9CI)  
(CA INDEX NAME)

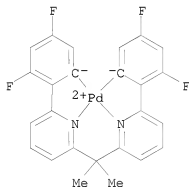


IT 913699-15-7P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
 (organic electroluminescent devices employing metal complex having multidentate ligand as host material)

RN 913699-15-7 CAPLUS

CN Palladium, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)

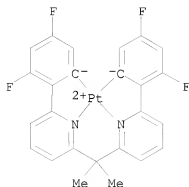


IT 864541-08-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (organic electroluminescent devices employing metal complex having multidentate ligand prepared using)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:706549 CAPLUS

DOCUMENT NUMBER: 145:155758

TITLE: Organic electroluminescent devices having metal complexes and host materials in emitter layers  
INVENTOR(S): Tsukahara, Jiro; Ise, Toshihiro; Uchida, Osamu; Nakamura, Akio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006190718	A	20060720	JP 2004-382034	20041228
PRIORITY APPLN. INFO.:			JP 2004-382034	20041228

OTHER SOURCE(S): MARPAT 145:155758

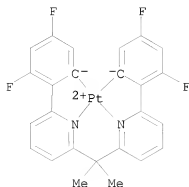
AB The devices have planar 4-coordinate metal complexes and host materials composed of nuclear components and ligands chosen from N-containing heterocyclic groups, cyano groups, and isocyano groups for coordination with the metal complexes in emitter layers between pairs of electrodes. The devices emit light with maximum wavelength  $\leq 500$  nm.

IT 864541-08-2

RL: DEV (Device component use); USES (Uses)  
(organic electroluminescent devices having metal complexes and host materials in emitter layers)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:604017 CAPLUS  
 DOCUMENT NUMBER: 145:73027  
 TITLE: Organic electroluminescent device  
 INVENTOR(S): Okada, Hisashi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 164 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006165526	A	20060622	JP 2005-325122	20051109
US 20060222887	A1	20061005	US 2005-269816	20051109
PRIORITY APPLN. INFO.:			JP 2004-326225	A 20041110

OTHER SOURCE(S): MARPAT 145:73027

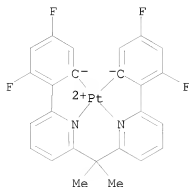
AB The invention relates to an organic electroluminescent device, providing a low voltage operation, enhanced luminescent characteristics, and good durability, comprising an organic layer, including an active layer, formed between a pair of electrodes, wherein the active layer comprises a phosphorescent metal complex with a tri- or higher dentate ligand doped in  $\geq 2$  host compds.

IT 864541-08-2  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(organic electroluminescent device)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:603049 CAPLUS

DOCUMENT NUMBER: 145:73023

TITLE: Organic electroluminescence device and production method

INVENTOR(S): Yamazaki, Kazuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 161 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006164948	A	20060622	JP 2005-268950	20050915
PRIORITY APPLN. INFO.:			JP 2004-329415	A 20041112

OTHER SOURCE(S): MARPAT 145:73023

AB The invention refers to an organic electroluminescence device comprising an organic layer between two electrodes, wherein the organic layer is formed by vapor deposition of a metal complex with a tri- or higher dentate ligand, and the vapor deposition process is repeated at least twice without switching the metal complex.

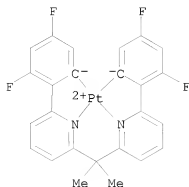
IT 864541-08-2

RL: DEV (Device component use); USES (Uses)

(organic electroluminescence device and production method)

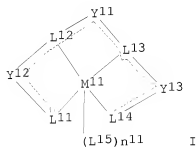
RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:516257 CAPLUS  
 DOCUMENT NUMBER: 145:36978  
 TITLE: Organic electroluminescent devices containing metal complexes having more than tridentate ligands  
 INVENTOR(S): Ogasawara, Atsushi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 152 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006140219	A	20060601	JP 2004-326658	20041110
US 20060141285	A1	20060629	US 2005-269698	20051109
PRIORITY APPLN. INFO.:			JP 2004-326658	A 20041110
OTHER SOURCE(S):	MARPAT 145:36978			
GI				



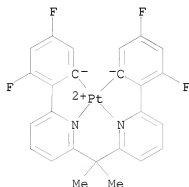
AB The devices have organic layers including emitting layers and contain metal complexes having  $\geq 3$ -dentate ligands and SiR11R12R13R14 [R11-R14 = H, substituent, including (hetero)aryl group] in one or more of the organic layers. The complexes may be represented by I [M11 = metal; L11-L15 = ligand; Y11-Y13 = bridging group, single bond, double bond; n11 = 0-4]. The devices exhibit high luminance and longer half life of the same.

IT 864541-08-2

RL: DEV (Device component use); USES (Uses)  
 (organic electroluminescent devices containing metal complexes having  
 more-than-tridentate ligands and substituted silane compds.)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:516156 CAPLUS

DOCUMENT NUMBER: 145:17464

TITLE: Vapor phase deposition of organic layers of organic EL device, organic EL device containing the layers, and manufacture of the organic EL device

INVENTOR(S): Yamazaki, Kazuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 149 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

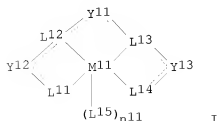
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006140059	A	20060601	JP 2004-329416	20041112
PRIORITY APPLN. INFO.:			JP 2004-329416	20041112
OTHER SOURCE(S):	MARPAT 145:17464			

GI



I

AB In the preparation of organic layers of organic EL device containing  $\geq 1$  organic

layers between a pair of electrodes, the process involves (i) degassing of evaporative materials containing  $\geq 1$  metal complexes with  $\geq 3$  ligands and (ii) heating of the evaporative materials and their deposition. Preferably, the metal complexes are represented by the general formula I (M11 = metal ion, preferably ion of Pt, Ir, Re, Pd, Rh, Ru, or Cu; L11-L15 = ligands which coordinate with M11; no more atom. groups exist in L11-L14 to form cyclic ligands; L15 will not bond with L11 and L14 both to form cyclic ligand; Y11-Y13 = linking group, single bond, double bond; when Y11, Y12, or Y13 are linking group, L11 and Y12, Y12 and L12, L12 and Y11, Y11 and L13, L13 and Y13, and Y13 and L14 show single bond or double bond independently; n11 = 0-4).

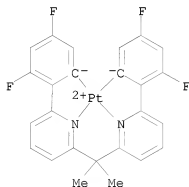
IT 864541-08-2

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(degassing and vapor phase deposition of metal complexes for preparation of organic layers of EL device)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:469966 CAPLUS

DOCUMENT NUMBER: 144:477361

TITLE: Organic electroluminescent device with high driving durability and defined ionization potential relationship among hole-transport and luminescent layers

INVENTOR(S): Kitamura, Yoshitaka

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 123 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

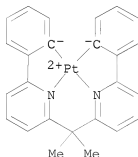
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

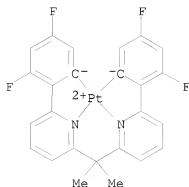
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060105202	A1	20060518	US 2005-272763	20051115
JP 2006173588	A	20060629	JP 2005-333096	20051117
PRIORITY APPLN. INFO.:			JP 2004-333263	A 20041117
OTHER SOURCE(S):	MARPAT	144:477361		



- AB A first aspect of the invention is an organic electroluminescent device that includes a plurality of organic compound layers between a pair of electrodes. The plurality of organic compound layers include a luminescent layer and two or more hole-transporting layers. The hole-transporting layers include a layer adjacent to the luminescent layer. The luminescent layer contains a host material and a luminescent material. The luminescent material is a metal complex containing a tri- or higher-dentate ligand. When the ionization potential of the luminescent layer is designated as  $Ip_0$ , the ionization potential of the hole-transporting layer adjacent to the luminescent layer among the hole-transporting layers is designated as  $Ip_1$ , and the ionization potential of the  $n$ -th hole-transporting layer from the luminescent layer among the hole-transporting layers is designated as  $Ip_n$ , these values satisfy the relationship represented by the following formula (1). In formula (1)  $n$  is an integer of 2 or more.  $Ip_0 > Ip_1 > Ip_2 > \dots > Ip_{n-1} > Ip_n$  formula (1). Thus, if the durability (defined as the time  $t_{0.5}$  necessary for a decrease in luminance from an initial value of 300 cd/m<sup>2</sup> to 150 cd/m<sup>2</sup>) of the comparative device comprising ITO (0.5 nm)/NPD hole-transport layer (40 nm)/mCP (95% by weight) + BPM-1 (5% by weight) luminescent layer [35 nm; where mCP = m-dicarbazolylbenzene, BPM-1 = [2,2-bis[6-(4,6-difluorophenyl- $\kappa$ -C2)-2-pyridyl]propane]platinum(II)]/BALq electron-transporting layer (45 nm)/Al cathode (100 nm) is defined as standard, then the device of the invention comprising CuPc 1st hole-transport layer (10 nm)/NPD 2nd hole-transport layer (25 nm)/HTM-1 3rd hole-transport layer [5 nm, where HTM-1 = diphenylbis[4-(tribenzazepinyl)phenyl]silane]]/mCP (95% by weight) + BPM-1 (5% by weight) luminescent layer (35 nm)/BALq 1st electron-transport layer (5 nm)/Alq 2nd electron-transport layer (40 nm) exhibited a durability relative to the standard of  $\geq 3.5$ .
- IT 808111-97-9 864541-08-2  
 RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
 (dopant in mixed luminescent layer; organic electroluminescent device with high driving durability and defined ionization potential relationship among hole-transport and luminescent layers)
- RN 808111-97-9 CAPLUS
- CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)



- RN 864541-08-2 CAPLUS
- CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:446105 CAPLUS

DOCUMENT NUMBER: 144:442426

TITLE: Organic electroluminescent devices employing heterocyclic compounds and metal complexes with multidentate ligands

INVENTOR(S): Ogasawara, Jun

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 113 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060099450	A1	20060511	US 2005-268650	20051108
JP 2006140218	A	20060601	JP 2004-326657	20041110
PRIORITY APPLN. INFO.:			JP 2004-326657	A 20041110

OTHER SOURCE(S): MARPAT 144:442426

AB Organic electroluminescent devices comprising  $\geq 1$  organic layer between a pair of electrodes are described in which the organic layers include a luminescent layer,  $\geq 1$  of the organic layers comprises  $\geq 1$  metal complex containing a tri- or higher-dentate ligand, and a compound having a heterocyclic skeleton containing  $\geq 2$  heteroatoms is contained in the organic layer containing the metal complex and/or in other organic layer(s).

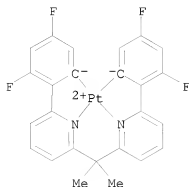
IT 864541-08-2

RL: DEV (Device component use); USES (Uses)

(organic electroluminescent devices employing heterocyclic compds. and metal complexes with multidentate ligands)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:446045 CAPLUS

DOCUMENT NUMBER: 144:442422

TITLE: Organic electroluminescent devices using metal complexes with multidentate ligands for enhancing singlet exciton generation

INVENTOR(S): Igarashi, Tatsuya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 117 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060099451	A1	20060511	US 2005-269809	20051109
JP 2006140182	A	20060601	JP 2004-326053	20041110
PRIORITY APPLN. INFO.:			JP 2004-326053	A 20041110

OTHER SOURCE(S): MARPAT 144:442422

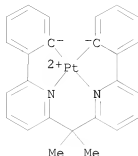
AB Organic electroluminescent devices comprising  $\geq 1$  organic compound layer containing a luminescent layer between a pair of electrodes are described in which the luminescent layer contains an electrofluorescent compound, the emission when voltage is applied being mainly derived from the fluorescent compound, and the luminescent layer further comprises an amplifying agent functioning to increase the number of singlet excitons generated and thus amplifying the light intensity when voltage is applied, the amplifying agent being a metal complex having a tridentate or higher dentate ligand.

IT 808111-97-9 864541-08-2

RL: DEV (Device component use); USES (Uses)  
(organic electroluminescent devices using metal complexes with multidentate ligands for enhancing singlet exciton generation)

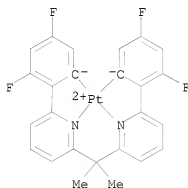
RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)



RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:322757 CAPLUS

DOCUMENT NUMBER: 144:380339

TITLE: Organic electroluminescent devices

INVENTOR(S): Yamazaki, Kazuki; Mishima, Masayuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 109 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

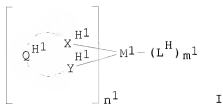
LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006093197	A	20060406	JP 2004-273203	20040921
PRIORITY APPLN. INFO.:			JP 2004-273203	20040921
OTHER SOURCE(S):	MARPAT 144:380339			
GI				



AB The devices contain light-emitting materials and host materials in the electroluminescent layers between a pair of electrodes. The light-emitting materials are metal complexes which have  $\geq 3$ -position ligands, and the host materials are also metal complexes (I).

IT 808111-97-9 864541-08-2

RL: DEV (Device component use); USES (Uses)

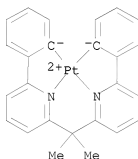
(light-emitting material; organic electroluminescent devices containing

metal

complexes and host materials in light-emitting materials)

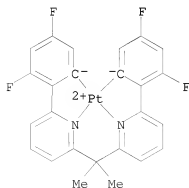
RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)



RN 864541-08-2 CAPLUS

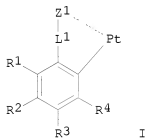
CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



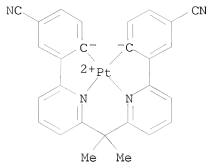
ACCESSION NUMBER: 2006:319697 CAPLUS  
 DOCUMENT NUMBER: 144:378696  
 TITLE: Light-emitting device employing a platinum complex with a quadridentate nitrogen-containing heterocyclic ligand  
 INVENTOR(S): Ise, Toshihiro; Sano, Satoshi; Igarashi, Tatsuya  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 44 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060073359	A1	20060406	US 2005-234141	20050926
JP 2006093542	A	20060406	JP 2004-279153	20040927
PRIORITY APPLN. INFO.: OTHER SOURCE(S):	MARPAT 144:378696		JP 2004-279153	A 20040927

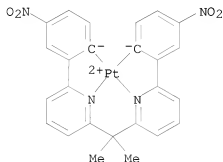
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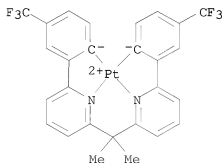
AB Organic electroluminescent devices are described which comprise a pair of electrodes and at least one organic layer including a light-emitting layer interposed between the pair of electrodes, wherein the organic layer contains at least one platinum complex compound having a quadridentate ligand containing a partial structure represented by formula (I), where Z1 represents a nitrogen-containing heterocycle coordinated to the platinum through a nitrogen atom; L1 represents a single bond or a linking group; R1, R3 and R4 each independently represent a hydrogen atom or a substituent; and R2 represents a substituent.  
 IT 881887-26-9P  
 RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (light-emitting device employing platinum complex with quadridentate nitrogen-containing heterocyclic ligand)  
 RN 881887-26-9 CAPLUS  
 CN Platinum, [[3,3'-[(1-methylethylidene)di-6,2-pyridinediyl]bis(benzonitrilato)](2-)]- (9CI) (CA INDEX NAME)



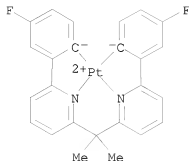
IT 881887-27-0P 881887-28-1P 881887-29-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (light-emitting device employing platinum complex with quadridentate  
 nitrogen-containing heterocyclic ligand)  
 RN 881887-27-0 CAPLUS  
 CN Platinum, [[2,2'-(1-methylethylidene)bis[6-(3-nitrophenyl)pyridinato]](2-  
 )]- (9CI) (CA INDEX NAME)



RN 881887-28-1 CAPLUS  
 CN Platinum, [[2,2'-(1-methylethylidene)bis[6-[3-  
 (trifluoromethyl)phenyl]pyridinato]](2-)]- (9CI) (CA INDEX NAME)



RN 881887-29-2 CAPLUS  
 CN Platinum, [[2,2'-(1-methylethylidene)bis[6-(3-fluorophenyl)pyridinato]](2-  
 )]- (9CI) (CA INDEX NAME)



L4 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:298895 CAPLUS

DOCUMENT NUMBER: 144:340470

TITLE: Organic electroluminescent devices with multiple emitter-doped active layers including complexes with tridentate and polydentate ligands

INVENTOR(S): Kitamura, Yoshitaka; Mishima, Masayuki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 50 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060068222	A1	20060330	US 2005-234273	20050926
JP 2006121032	A	20060511	JP 2005-83458	20050323
			JP 2004-279563	A 20040927

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 144:340470

AB Organic electroluminescent devices having an anode, a cathode, and  $\geq 1$  organic compound layer between the anode and the cathode, with  $\geq 1$  of the  $\geq 1$  organic compound layers being an organic luminescent layer, are described in which the organic luminescent layer contains  $\geq 1$  host material and  $\geq 2$  luminescent materials,  $\geq 1$  of the luminescent materials being a metal complex having a tridentate or higher polydentate chain ligand.

IT 808111-97-9 864541-08-2

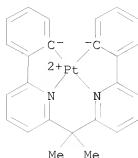
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(organic electroluminescent devices with multiple emitter-doped active layers including complexes with tridentate and polydentate ligands)

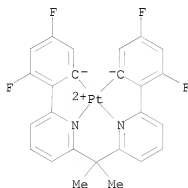
RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)





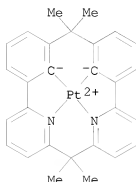
RN 864541-08-2 CAPLUS  
 CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:97819 CAPLUS  
 DOCUMENT NUMBER: 144:180483  
 TITLE: Organic electroluminescence device  
 INVENTOR(S): Ise, Toshihiro; Igarashi, Tatsuya  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006032758	A	20060202	JP 2004-211236	20040720
PRIORITY APPLN. INFO.:			JP 2004-211236	20040720
AB The invention refers to an organic electroluminescence device comprising a metal complex containing a metal from the 5 period or 6 period, and from the 5th to 11th Group, or a rare earth metal complex.				
IT 874743-10-9				
RL: DEV (Device component use); USES (Uses) (organic electroluminescence device comprising metal complex)				
RN 874743-10-9 CAPLUS				
CN Platinum, (7,7,18,18-tetramethyl-23,24-				

diazapentacyclo[17.3.1.12,6.18,12.113,17]hexacosa-  
1(23),2,4,6(26),8,10,12(25),13,15,17(24),19,21-dodecaene-25,26-diyl-  
κC25,κC26,κN23,κN24)-, (SP-4-2)- (9CI) (CA INDEX  
NAME)



L4 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:75152 CAPLUS

DOCUMENT NUMBER: 144:150483

TITLE: Organometallic transition metal cryptates and  
polypodal complexes as luminescent components for  
light-emitting devices

INVENTOR(S): Stoessel, Philipp; Breuning, Esther

PATENT ASSIGNEE(S): Covion Organic Semiconductors GmbH, Germany

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006008069	A1	20060126	WO 2005-EP7672	20050714
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
DE 102004034517	A1	20060216	DE 2004-102004034517	20040716
EP 1768989	A1	20070404	EP 2005-770990	20050714
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1997656	A	20070711	CN 2005-80023888	20050714
JP 2008506652	T	20080306	JP 2007-520763	20050714
KR 2007032784	A	20070322	KR 2007-700988	20070115
US 20080027220	A1	20080131	US 2007-632619	20070116

PRIORITY APPLN. INFO.:

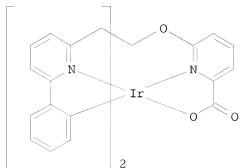
DE 2004-102004034517A 20040716

WO 2005-EP7672 W 20050714

OTHER SOURCE(S):

CASREACT 144:150483; MARPAT 144:150483

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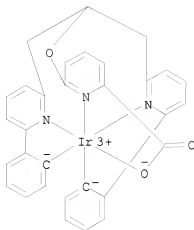
AB Transition metal complexes of the type  $[M[V1(QC-QD)3V2a]]n+$  or  $[M[V1(Q1C-Q1D)(QC-QD)2V2a]]n+$  (1), preferably uncharged [M = transition metal, preferably M = W, Re, Ru, Os, Rh, Ir, Pt, Au; V1, V2 = covalent bridging groups, containing 1-80 atoms, preferably V1 and V2 are neutral, mononeg. or monopos. and contain Group III, IV, V or VI elements at bridging positions or contain 3-6-membered heterocycle(s); the charges of groups V1 and V2 are preferably chosen to make the whole complex neutral; QC, Q1C = C-bound (hetero)cyclic groups, containing at least 1 carbon; QD, Q1D = heteroatom-bound (hetero)cyclic groups; a = 1,0, preferably a = 1], useful as organic components for electronic devices, such as OLEDs, O-ICs, thin-film transistors, solar cells or laser diodes (no data), were prepared by template-directed cyclization of metal pro-ligand complexes of the type  $[V1(QC-QD)3M]$  with bridge-forming reactants containing the group V2. In an example, iridium cyclometalated 2-phenylpyridine polypodal complex I was prepared by coupling of bis(3-bromobenzyl)carbinol with pinacol 2-pyridineboronate followed by etherification with 6-chloro-2-pyridinecarboxylic acid and complexation with  $IrCl3 \cdot 3H2O$ .

IT 874186-97-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(organometallic transition metal cryptates and polypodal complexes as luminescent components for organic light-emitting devices)

RN 874186-97-7 CAPLUS

CN Iridium, [6-[2-[6-(phenyl- $\kappa$ C2)-2-pyridinyl- $\kappa$ N]-1-[6-(phenyl- $\kappa$ C2)-2-pyridinyl- $\kappa$ N]methyl]ethoxy]-2-pyridinecarboxylato(3-)- $\kappa$ N1, $\kappa$ O2]-, (OC-6-34)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:1004221 CAPLUS  
 DOCUMENT NUMBER: 143:315141  
 TITLE: Organic light-emitting devices with light-emitting layers containing an electrically inactive compound  
 INVENTOR(S): Mishima, Masayuki; Ogasawara, Jun  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 22 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050202278	A1	20050915	US 2005-66195	20050225
US 7422800	B2	20080909		
JP 2005294250	A	20051020	JP 2005-21268	20050128
PRIORITY APPLN. INFO.:			JP 2004-66781	A 20040310
			JP 2005-21268	A 20050128

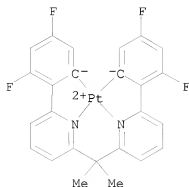
OTHER SOURCE(S): MARPAT 143:315141

AB Organic electroluminescent devices which comprise an organic compound layer structure containing  $\geq 1$  light-emitting layer are described in which the light-emitting layer contains a light-emitting material and an elec. inactive organic compound capable of being subjected to dry film formation and having an energy difference between its HOMO and LUMO of  $\geq 4.0$  eV. The light-emitting layer may comprise a phosphorescent material, especially an orthometalated metal complex or a porphyrin metal complex.

IT 864541-08-2  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)  
 (organic electroluminescent devices with light-emitting layers containing an elec. inactive compound)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)(3,5-difluoro-2,1-phenylene- $\kappa$ C)]]-, (SP-4-2)- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:1004220 CAPLUS  
 DOCUMENT NUMBER: 143:315140  
 TITLE: Organic light-emitting device with hole transport layers containing an electrically inactive compound  
 INVENTOR(S): Mishima, Masayuki; Ogasawara, Jun  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 22 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050202277	A1	20050915	US 2005-65478	20050225
US 7422799	B2	20080909		
JP 2005294249	A	20051020	JP 2005-21267	20050128
PRIORITY APPLN. INFO.:			JP 2004-66777	A 20040310
			JP 2005-21267	A 20050128

OTHER SOURCE(S): MARPAT 143:315140

AB Organic electroluminescent devices which comprise an organic compound layer containing

a hole transport layer, a light-emitting layer, and an electron transport layer between a pair of electrodes are described in which the hole transport layer contains a hole-transporting material and an elec. inactive organic compound capable of being subjected to dry film formation and having an energy difference between its HOMO and LUMO of  $\geq 4.0$  eV. The light-emitting layer may comprise a phosphorescent material, especially an orthometalated metal complex or a porphyrin metal complex. The hole transport layer may have a multilayered structure comprising a first hole transport layer comprising a first hole-transporting material; and a second hole transport layer comprising a second hole-transporting material and the elec. inactive organic compound

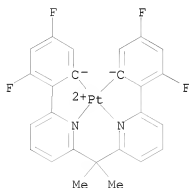
IT 864541-08-2

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(organic electroluminescent devices with hole transport layers containing an elec. inactive organic compound)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-difluoro-2,1-phenylene-κC)]]-, (SP-4-2)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1004219 CAPLUS

DOCUMENT NUMBER: 143:315139

TITLE: Organic light emitting devices using electrically inactive materials

INVENTOR(S): Mishima, Masayuki; Ogasawara, Jun

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 22 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050202276	A1	20050915	US 2005-65440	20050225
JP 2005294248	A	20051020	JP 2005-21266	20050128
PRIORITY APPLN. INFO.:			JP 2004-66779	A 20040310
			JP 2005-21266	A 20050128

OTHER SOURCE(S): MARPAT 143:315139

AB Organic electroluminescent devices which comprise an organic compound layer containing

a hole transport layer, a light-emitting layer, a blocking layer, and an electron transport layer between a pair of electrodes are described in which the blocking layer contains an electron transport material and an elec. inactive organic compound capable of being subjected to dry film formation and having an energy difference between its HOMO and LUMO of  $\geq 4.0$  eV. The light-emitting layer may comprise a phosphorescent material, especially an orthometalated metal complex or a porphyrin metal complex.

IT 864541-08-2

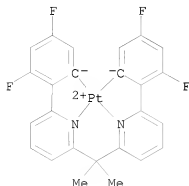
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(organic electroluminescent devices with blocking layers containing an electron transport material and an elec. inactive organic compound)

RN 864541-08-2 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl-κN)(3,5-

difluoro-2,1-phenylene-κC)]], (SP-4-2)- (CA INDEX NAME)



L4 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:409536 CAPLUS

DOCUMENT NUMBER: 142:447304

TITLE: Preparation of cyclometalated metal complexes with bipodal ligands

INVENTOR(S): Stoessel, Philipp; Gerhard, Anja

PATENT ASSIGNEE(S): Covion Organic Semiconductors G.m.b.H., Germany

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

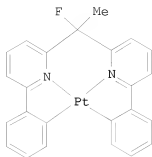
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042550	A1	20050512	WO 2004-EP11890	20041021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10350722	A1	20050525	DE 2003-10350722	20031030
EP 1678190	A1	20060712	EP 2004-790697	20041021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1894269	A	20070110	CN 2004-80031488	20041021
JP 2007519614	T	20070719	JP 2006-537137	20041021
KR 2006111456	A	20061027	KR 2006-708085	20060426
US 20070082284	A1	20070412	US 2006-578039	20060501
PRIORITY APPLN. INFO.:			DE 2003-10350722	A 20031030
			WO 2004-EP11890	W 20041021

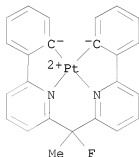
OTHER SOURCE(S): CASREACT 142:447304; MARPAT 142:447304

GI



I

- AB The invention relates to novel metal complexes with bipolar ligands. Thus, cyclometalation reaction of 1,1-bis(6-phenyl-2-pyridyl)-1-fluoroethane (preparation given) with cis-dimethyldi(η1-S-dimethylsulfoxidyl)platinum(II) in PhMe at 90° for 3h gave 94% title complex I. Such compds. are of application as functional materials in a range of different applications, associated with the widest sense of the electronic industry.
- IT 851231-11-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of cyclometalated metal complexes with bipodal ligands useful in electronic industry)
- RN 851231-11-3 CAPLUS
- CN Platinum, [(1-fluoroethylidene)bis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (9CI) (CA INDEX NAME)



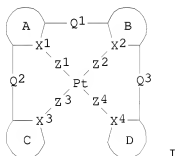
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:409442 CAPLUS  
 DOCUMENT NUMBER: 142:472295  
 TITLE: Platinum complex as luminescent material in organic electroluminescent devices  
 INVENTOR(S): Itoh, Hisanori; Nakayama, Yuji; Iwata, Takeshi; Matsushima, Yoshimasa; Hori, Yoji  
 PATENT ASSIGNEE(S): Takasago International Corporation, Japan  
 SOURCE: PCT Int. Appl., 91 pp.



DOCUMENT TYPE: CODEN: PIXXD2  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 Japanese  
 PATENT INFORMATION:

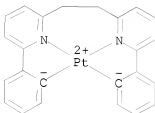
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042444	A2	20050512	WO 2004-JP15889	20041027
WO 2005042444	A3	20050623		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1683804	A2	20060726	EP 2004-817419	20041027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1875026	A	20061206	CN 2004-80031799	20041027
CN 100445294	C	20081224		
JP 4110173	B2	20080702	JP 2005-515131	20041027
KR 2006115371	A	20061108	KR 2006-708160	20060427
US 20070103060	A1	20070510	US 2006-578237	20060503
US 7442797	B2	20081028		
PRIORITY APPLN. INFO.:			JP 2003-374861	A 20031104
OTHER SOURCE(S):			WO 2004-JP15889	W 20041027
GI			MARPAT 142:472295	



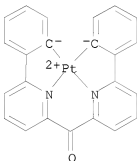
AB The invention relates to a novel platinum complex useful as a material for luminescent devices satisfactory in luminescent properties and luminescent efficiency; and a novel luminescent material utilizable in various fields. The platinum complex is represented by the general formula I, where any two of rings A, B, C, and D each represents an optionally substituted nitrogenous heterocycle and the remaining two each represents an optionally substituted aryl or heteroaryl ring, provided that rings A and B, rings A and C, or/and rings B and D may form a fused ring; any two of X1, X2, X3, and X4 each represents a nitrogen atom coordinating to the platinum atom and the remaining two each represents carbon or nitrogen;

Q1, Q2, and Q3 each represents a bond, oxygen, sulfur, or a divalent group; and any two of Z1, Z2, Z3, and Z4 each represents a coordinate bond and the remaining two each represents a covalent bond, oxygen, or sulfur. The invention also relates to a luminescent device employing this platinum complex.

IT 851605-10-2P 851605-11-3P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (platinum complex as luminescent material in organic electroluminescent devices)  
 RN 851605-10-2 CAPLUS  
 CN Platinum, [1,2-ethanediylbis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (9CI) (CA INDEX NAME)



RN 851605-11-3 CAPLUS  
 CN Platinum, [carbonylbis[(6,2-pyridinediyl-κN)-2,1-phenylene-κC]]-, (SP-4-2)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2004:1080997 CAPLUS  
 DOCUMENT NUMBER: 142:65002  
 TITLE: Organic electroluminescent devices and metal complex compounds  
 INVENTOR(S): Nii, Kazumi; Watanabe, Kousuke; Igarashi, Tatsuya; Ichijima, Seiji; Ise, Toshihiro  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 142 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004108857	A1	20041216	WO 2004-JP7882	20040601
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2005310733	A	20051104	JP 2004-162849	20040601
EP 1629063	A1	20060301	EP 2004-735658	20040601
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1777663	A	20060524	CN 2004-80010948	20040601
US 20060182992	A1	20060817	US 2005-551653	20050929
PRIORITY APPLN. INFO.:			JP 2003-157006	A 20030602
			JP 2004-92274	A 20040326
			WO 2004-JP7882	W 20040601

OTHER SOURCE(S): MARPAT 142:65002

AB Organic electroluminescent devices which have a pair of electrodes and  $\geq 1$  organic layer including a luminescent layer between the pair of electrodes are described in which  $\geq 1$  layer between the pair of electrodes comprises  $\geq 1$  metal complex having a tridentate- or higher polydentate-chain structure ligand. Preferably, the metal ion in the metal complex is selected from platinum, iridium, rhenium, palladium, rhodium, ruthenium and copper ions. Selected groups of platinum complexes are also described.

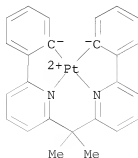
IT 808111-97-9

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(organic electroluminescent devices using metal-polydentate ligand complexes)

RN 808111-97-9 CAPLUS

CN Platinum, [(1-methylethylidene)bis[(6,2-pyridinediyl- $\kappa$ N)-2,1-phenylene- $\kappa$ C]]-, (SP-4-2)- (CA INDEX NAME)



REFERENCE COUNT:

19

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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10/578,039

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L3 25 S L1 FULL

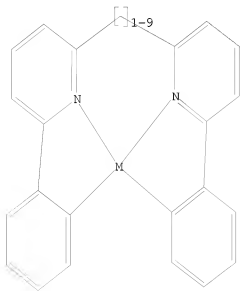
FILE 'CAPLUS' ENTERED AT 15:22:00 ON 28 MAY 2009

L4 44 S L3

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

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